

### **Remarks**

The various parts of the Office Action (and other matters, if any) are discussed below under appropriate headings.

#### ***Claim Rejections - 35 USC § 102 and § 103***

Claims 1-3, 5-6, 8, 27-29, 31-32 and 34 have been rejected under 35 U.S.C. § 102(b) over Storoy et al., "Single Polarization Fibre DFB Laser," Electron. Lett., Vol. 33(1) (1,1997) or alternatively under 35 U.S.C. § 103(a) over Storoy in view of Erdogan et al, "Characterization of UV-Induced Birefringence in Photosensitive Ge-Doped Silica Optical Fibers." JOSA B Vol. 11(10), pp. 2100-2105 (10/1994).

Claims 28-29, 31 and 33-37 have been amended to avoid redundancy of claims 28-37 with claims 2-11.

At page 6 of the Office Action, the Examiner indicated that these rejections could be obviated by 1) incorporating a detailed description from GB 2316760 (also identifiable as GB 9617688.8) in place of the reference in the application at page 4, lines 27-29; and 2) inserting suggested subject matter in the claims.

With respect to the first item (incorporating a description from GB 2316760), the undersigned respectfully points out that the subject matter was incorporated by amendment in the Reply to Office Action Dated September 3, 2003 (mailed to the Office on December 3, 2003). The Examiner has indicated at page 2 of the Office Action that the subject matter was incorporated into the specification without adding new matter. Accordingly, it is submitted that the first item is satisfied.

To expedite prosecution of the application, claim 1 has been amended in accordance with the suggestions contained in the second item. It is noted that the suggestions included adding language to the effect of "without post processing." It is believed that this suggestion stems from the argument presented in the Reply to Office Action Dated November 15, 2002 (mailed to the Office on March 17, 2003) in the paragraph spanning pages 3 and 4. The "without post processing" language is considered overly restrictive as "post processing" could include virtually any post processing procedure including, perhaps, using the fiber laser manufactured by the claimed method. Accordingly, claim 1 has been amended to recite that the grating

structure is formed without tuning of the discrete phase shift as discussed in greater detail in the above-mentioned Reply to Office Action Dated November 15, 2002.

It is noted that the Examiner commented at page 4 that the claims use the term "comprising." While it is true that claim 1 uses this open-ended transition clause, claim 27 uses "consisting of" as a closed-ended transition clause. For clarity, and without changing the scope of the claims, a later use of the word "comprising" in claims 1 and 27 has been amended to "having."

Claims 1-6, 8-11, 27-32 and 34-37 have been rejected under 35 U.S.C. § 103(a) over Storoy alone or in combination with Erdogan in view of U.S. Patent No. 5,956,442 to Byron. The Examiner indicated that the above-described amendments would obviate the rejection of Storoy taken alone. Although Byron teaches straining the fiber during writing of a chirped Bragg reflection grating, Byron does not teach or suggested at least the aspects added to claim 1 at the suggestion of the Examiner or the closed-ended process recited in claim 27. Therefore, even if one were to make the proposed combination, the claimed invention would not result. Furthermore, only dependent claims 8-9 and 34-35 recite that the fiber is stressed, but other claims have been rejected over the proposed combination.

Claims 1-11 and 27-37 have been rejected under 35 U.S.C. § 103(a) over Storoy alone or combined with Erdogan in view of Byron and further in view of U.S. Patent No. 5,881,197 to Dong. The Examiner indicated that the above-described amendments would obviate the rejection of Storoy taken alone.

Although Dong compares Yb/Er doped fibers and Er only doped fibers, Dong also indicates at column 2, lines 12-17 that Yb/Er fibers have the disadvantage that useable grating can only be written with hydrogenation. In this passage Dong goes on to state that the hydrogenation makes writing more difficult and reduces laser efficiency. Accordingly, it is submitted that Dong teaches away from Yb/Er doped fibers. Nor does Dong teach or suggested at least the aspects added to claim 1 at the suggestion of the Examiner or the closed-ended process recited in claim 27. Therefore, motivation to combine Dong with the other reference is lacking since Dong teaches away from Yb/Er doped fibers and even if one were to make the proposed combination, the claimed invention would not result. Furthermore, only claims 7 and 33 recite a fiber doped with these elements, but other claims have been rejected over the proposed combination.

In view of the foregoing, reconsideration and withdrawal of the rejections under 35 U.S.C. §§ 102-103 is respectfully requested.

***New Claims***

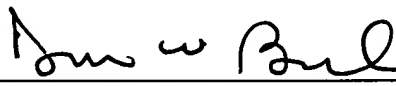
Claim 38 has been added to depend from claim 1 and claims 39-40 have been added to depend from claim 27. The added claims recited additional novel and unobvious features of the invention.

***Conclusion***

In view of the foregoing, request is made for timely issuance of a notice of allowance.

Respectfully submitted,

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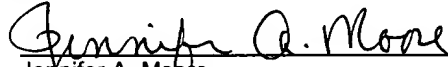
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